

SWIFT

State Water Implementation Fund for Texas

TEXAS  TRUST
TEXAS TREASURY SAFEKEEPING TRUST COMPANY
COMPTROLLER GLENN HEGAR, CHAIRMAN

Q4 2017 COMPTROLLER'S INVESTMENT ADVISORY BOARD PORTFOLIO REVIEW

MEETING DATE: APRIL 26, 2018

SWIFT

State Water Implementation Fund for Texas

The State Water Implementation Fund for Texas (“SWIFT”) was created by the 83rd Texas Legislature, Regular Session, and became effective once voters approved the constitutional amendment to fund the SWIFT with \$2 billion from the Economic Stabilization Fund. The creation of the SWIFT and its requirements are set forth in Chapter 15 of the Texas Water Code. Funds in the SWIFT are used to subsidize financing costs for projects included in the State Water Plan developed and implemented by the Texas Water Development Board (TWDB). The balance of the SWIFT is expected to be drawn down over time; however, funds used for financing subsidies will ultimately be repaid to the SWIFT. The investment objective of the SWIFT is to preserve its purchasing power while maintaining sufficient liquidity to meet the needs of the TWDB.

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Asset Allocation Summary

As of December 31, 2017

Asset Class	Strategy	Number of Funds ^{1,2}	Number of Managers ^{1,2}	Current Market Value	Weight	Target Weight
Fixed Income		36	27	\$1,008,027,405	52.7%	50.0%
	Global Fixed Income (ex-cash)	8	8	194,038,602	10.1%	10.0%
	Cash	4	4	238,832,075	12.5%	5.0%
	Alternative Fixed Income	8	7	332,748,828	17.4%	15.0%
	Private Debt	16	14	242,407,900	12.7%	20.0%
Equity		15	14	\$535,528,782	28.0%	30.0%
	Global Public Equity	3	3	83,336,465	4.4%	5.0%
	Hedged Equity	11	10	450,015,846	23.5%	25.0%
	Private Equity	1	1	2,176,471	0.1%	0.0%
Real Assets		8	6	\$278,317,483	14.6%	20.0%
	Real Estate	7	5	269,058,605	14.1%	15.0%
	Commodities	1	1	9,258,879	0.5%	5.0%
Strategic All Asset & Overlays		2	2	\$90,668,574	4.7%	0.0%
	All Asset Strategies	2	2	90,668,574	4.7%	0.0%
Total Portfolio		61	45	\$1,912,542,245	100.0%	100.0%

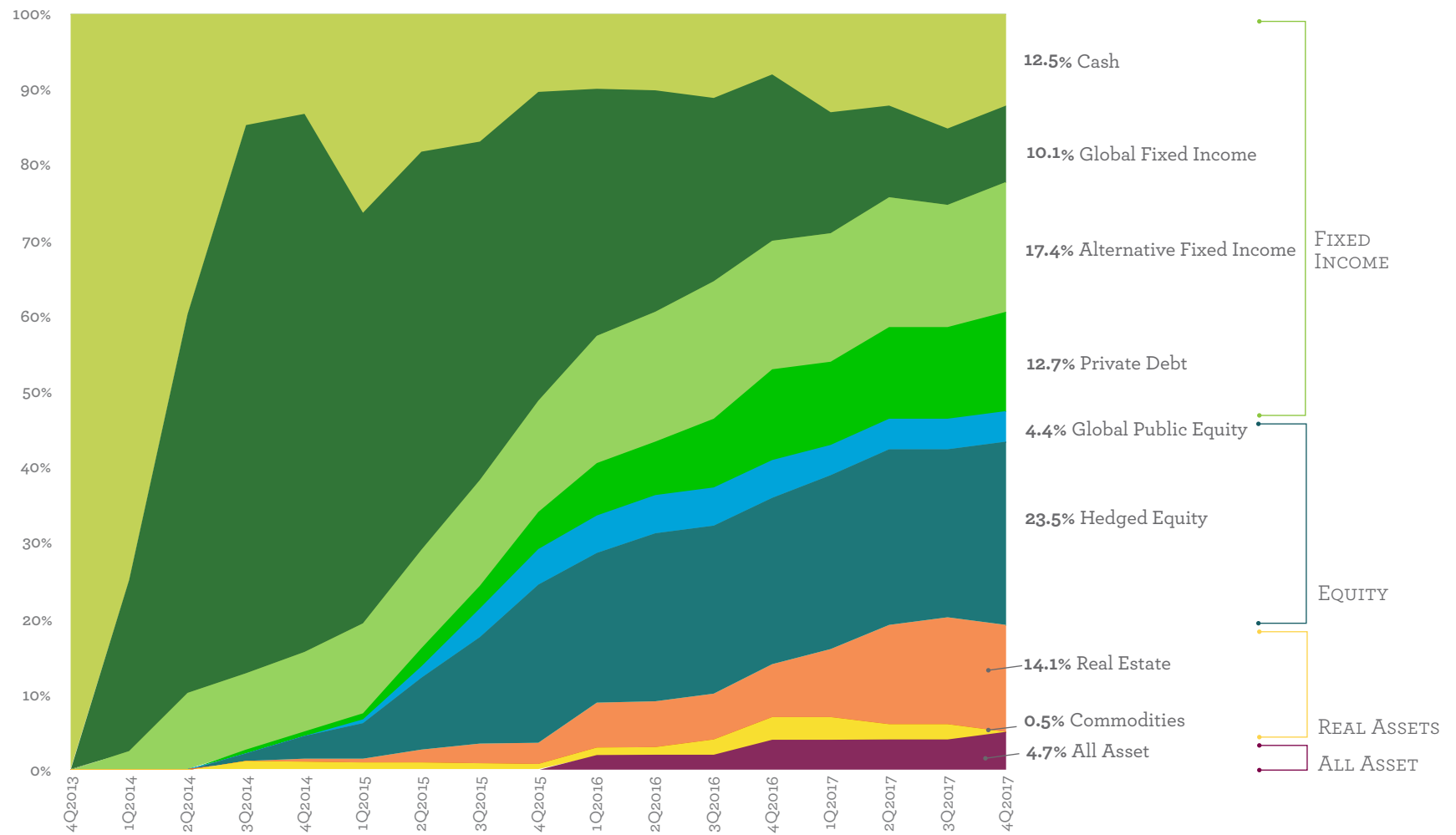
¹ Does not include funds in wind down or redemption.

² Manager count for aggregates are less than sum of components due to managers with multiple strategy allocations.

Asset Allocation Evolution (Actual)

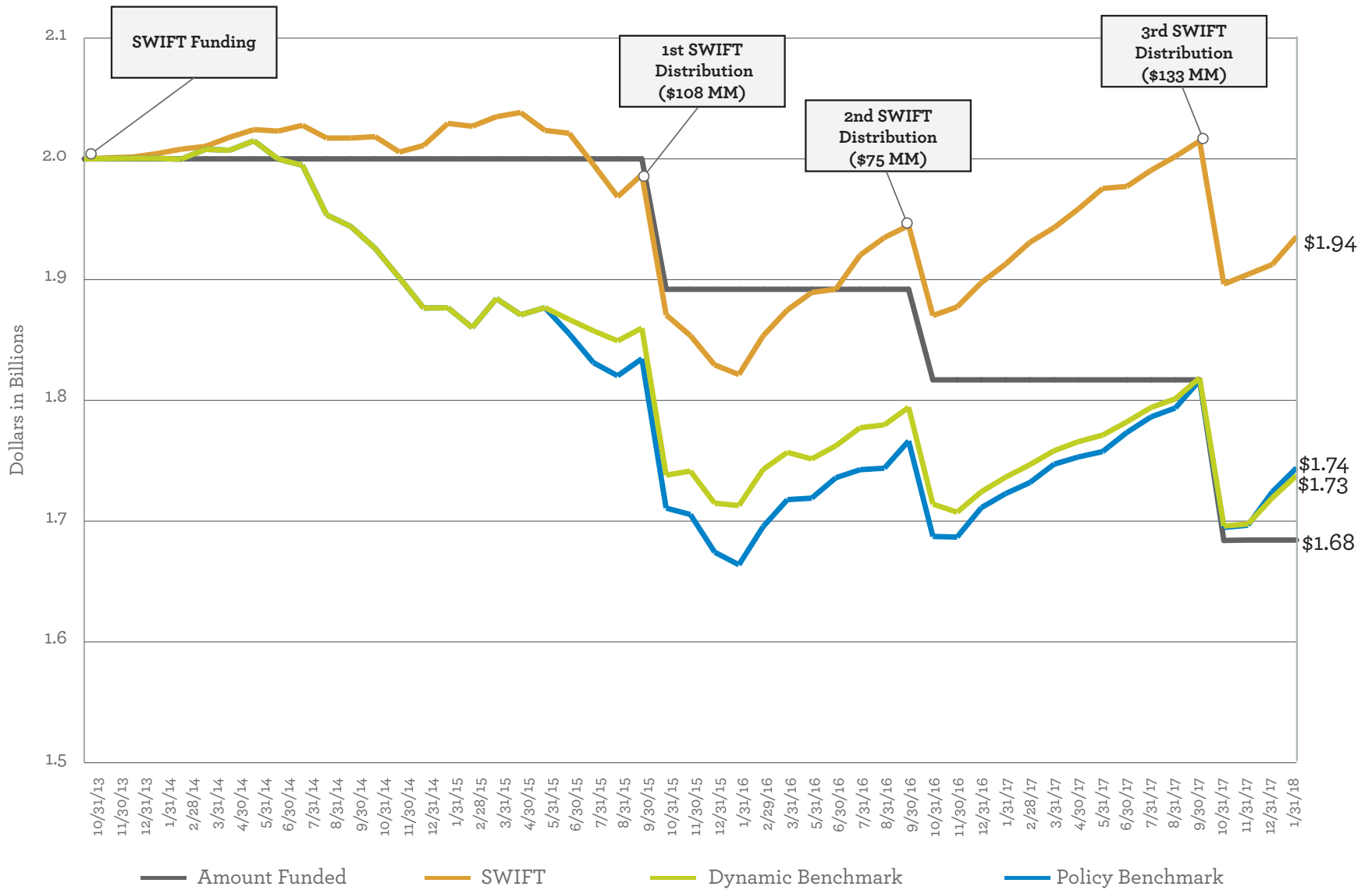
As of December 31, 2017

Total AUM: \$1,912,542,245



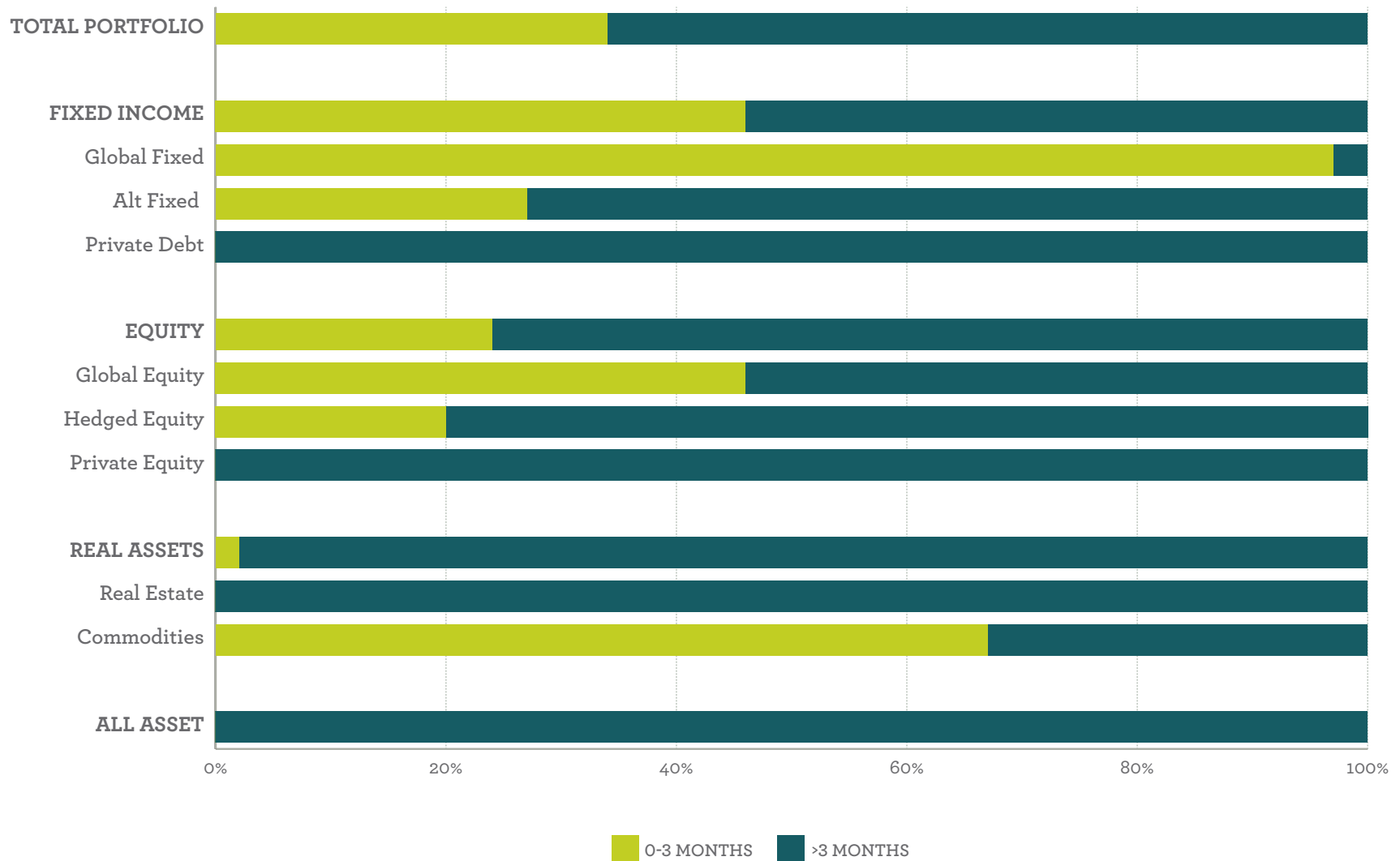
SWIFT Portfolio Market Value

As of January 31, 2018



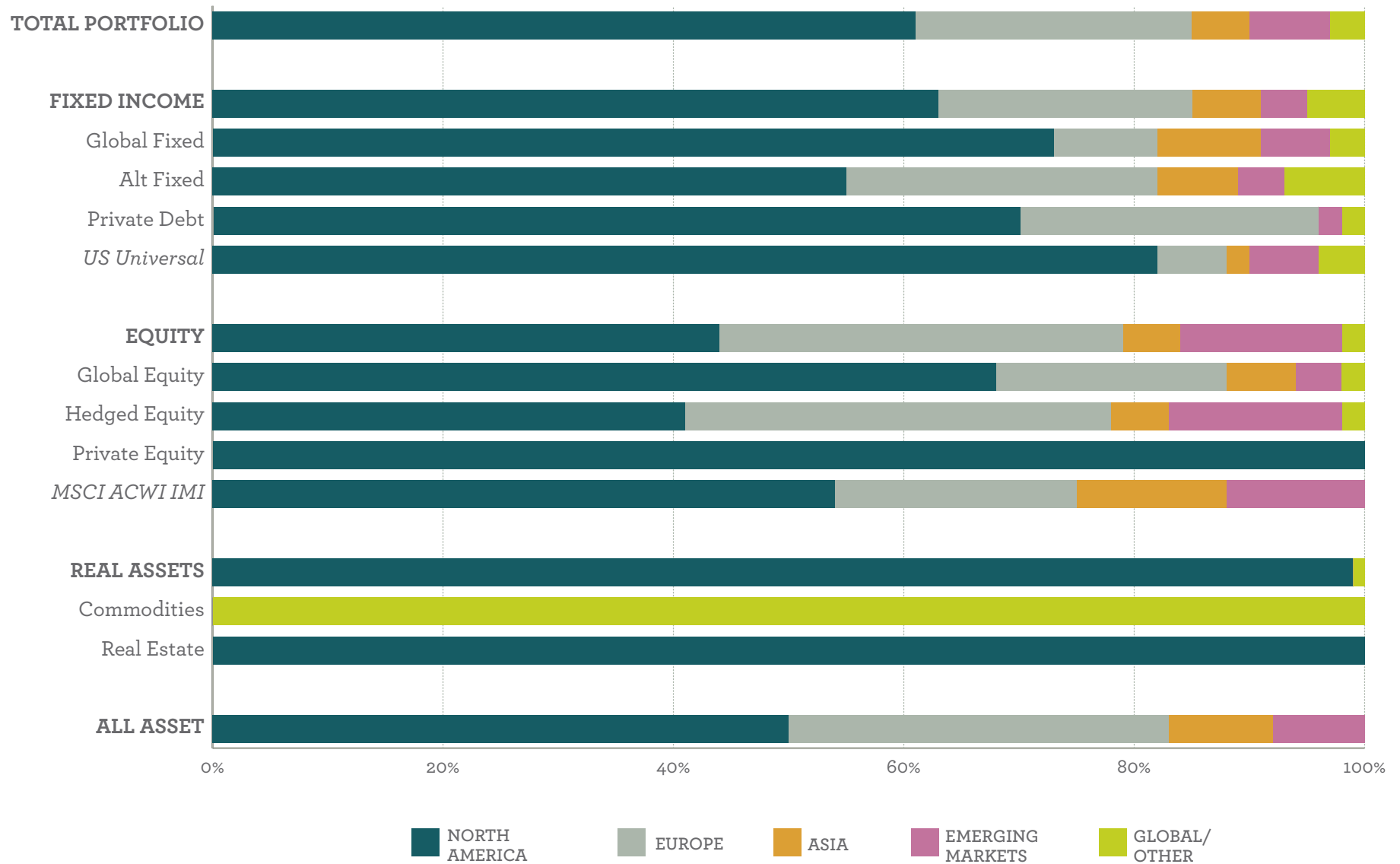
Portfolio Liquidity

As of December 31, 2017



Portfolio Geographic Allocation¹

As of December 31, 2017



¹ Calculated using gross exposures.

Fixed Income Summary

As of December 31, 2017

Strategy	Market Value	Portfolio Weight	Standard Deviation ¹	Sharpe Ratio ¹	% Positive Months ¹	US Universal		HFRI Conservative		MSCI ACWI IMI	
						Beta ¹	Correlation ¹	Beta ¹	Correlation ¹	Beta ¹	Correlation ¹
Global Fixed Income (ex-cash)	\$194,038,602	10.1%	2.4%	0.88	66.7%	0.4	0.4	0.6	0.6	0.2	0.8
Cash	\$238,832,075	12.5%	-	-	-	-	-	-	-	-	-
<i>US Universal</i>			2.7%	0.89	63.9%	-	-	-0.2	-0.1	0.0	0.1
Alternative Fixed Income	\$332,748,828	17.4%	2.9%	1.93	80.6%	0.3	0.3	0.8	0.6	0.2	0.6
<i>HFRI FoF: Conservative</i>			2.1%	0.80	72.2%	-0.1	-0.1	-	-	0.1	0.7
Private Debt	\$242,407,900	12.7%	-	-	-	-	-	-	-	-	-
Total Fixed Income	\$1,008,027,405	52.7%	2.0%	1.54	72.2%	0.3	0.4	0.6	0.6	0.1	0.7

¹ Trailing 36 months.

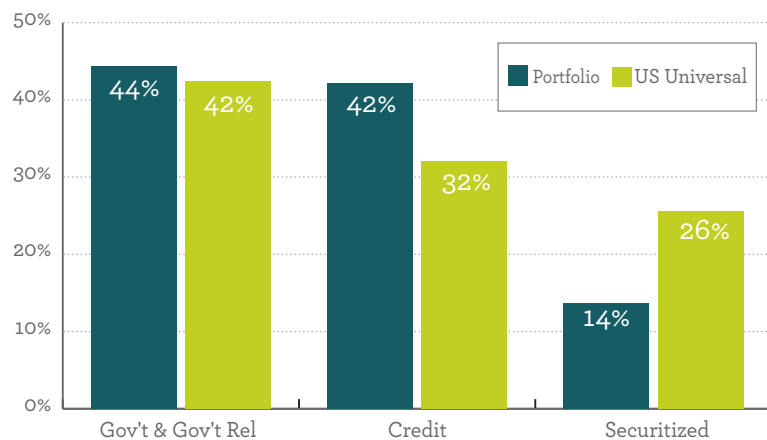
Strategy	Number of Fund Commitments	Commitments	Unfunded Commitments	Total Contributions ¹	Distributions	Remaining Value ²	Total Value
Private Debt Total	1	\$2,500,000	\$323,530	\$2,176,470	\$0	\$2,176,471	\$2,176,471

¹ Total Contributions include fees and expenses that may not reduce or lower unfunded commitment.

² Remaining Value is equal to the last actual reported capital account value plus subsequent capital calls less subsequent distributions through the indicated date, with no valuation changes.

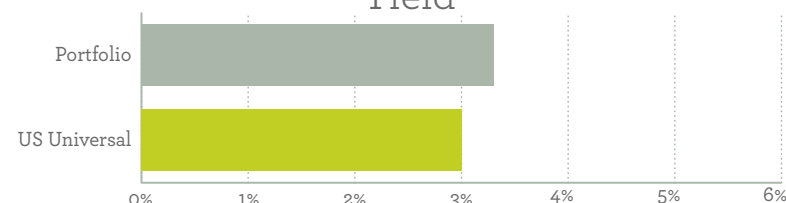
Sector Exposure¹

Global Fixed
ex-cash

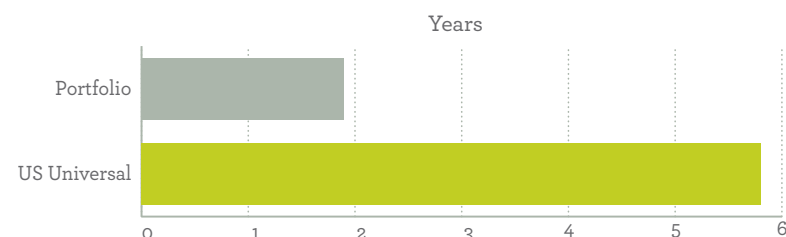


¹ Calculated using gross exposures

Yield



Duration



Equity Summary

As of December 31, 2017

Strategy	Market Value	Portfolio Weight	Standard Deviation ¹	Sharpe Ratio ¹	% Positive Months	MSCI ACWI IMI		HFRI FoF Strategic	
						Beta ¹	Correlation ¹	Beta ¹	Correlation ¹
Global Equity	\$83,336,465	4.4%	9.3%	0.84	63.9%	0.8	0.9	1.5	0.8
<i>MSCI ACWI IMI</i>			10.5%	0.87	69.4%	-	-	1.8	0.9
Hedged Equity	\$450,015,846	23.5%	6.1%	0.73	72.2%	0.5	0.8	1.1	0.9
<i>HFRI FoF: Strategic</i>			5.0%	0.57	69.4%	0.4	0.9	-	-
Private Equity	\$2,176,471	0.1%	-	-	-	-	-	-	-
Total Equity	\$535,528,782	28.0%	6.4%	0.79	72.2%	0.5	0.9	1.2	0.9

¹Trailing 36 months.

Strategy	Number of Fund Commitments	Commitments	Unfunded Commitments	Total Contributions ¹	Distributions	Remaining Value ²	Total Value
Total Private Equity³	1	\$2,500,000	\$323,530	\$2,176,470	\$0	\$2,176,471	\$2,176,471

¹Total Contributions include fees and expenses that may not reduce or lower unfunded commitment.

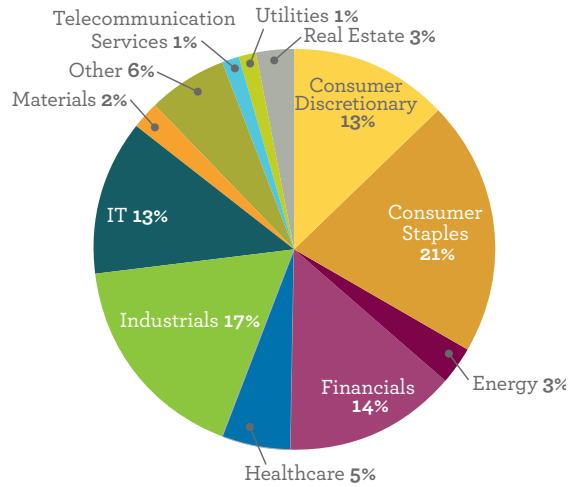
²Remaining Value is equal to the last actual reported capital account value plus subsequent capital calls less subsequent distributions through the indicated date, with no valuation changes.

³Represents a note to participate in 5% of the profits of BNY-RECAP, a joint venture formed by Amherst Holdings and BNY Mellon as a vehicle for Amherst to manage various real estate-related investment strategies. This right is conditioned on a \$125 million total commitment to invest in five future strategies to be offered by the joint venture.

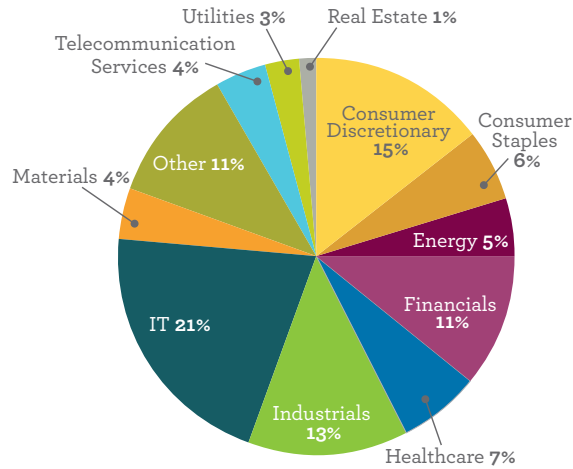
Equity Detail

As of December 31, 2017

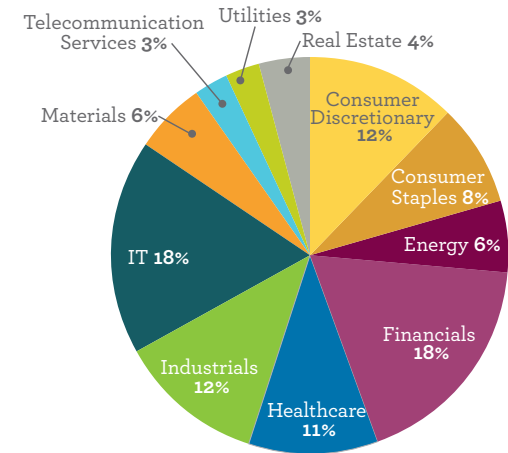
Global Equity



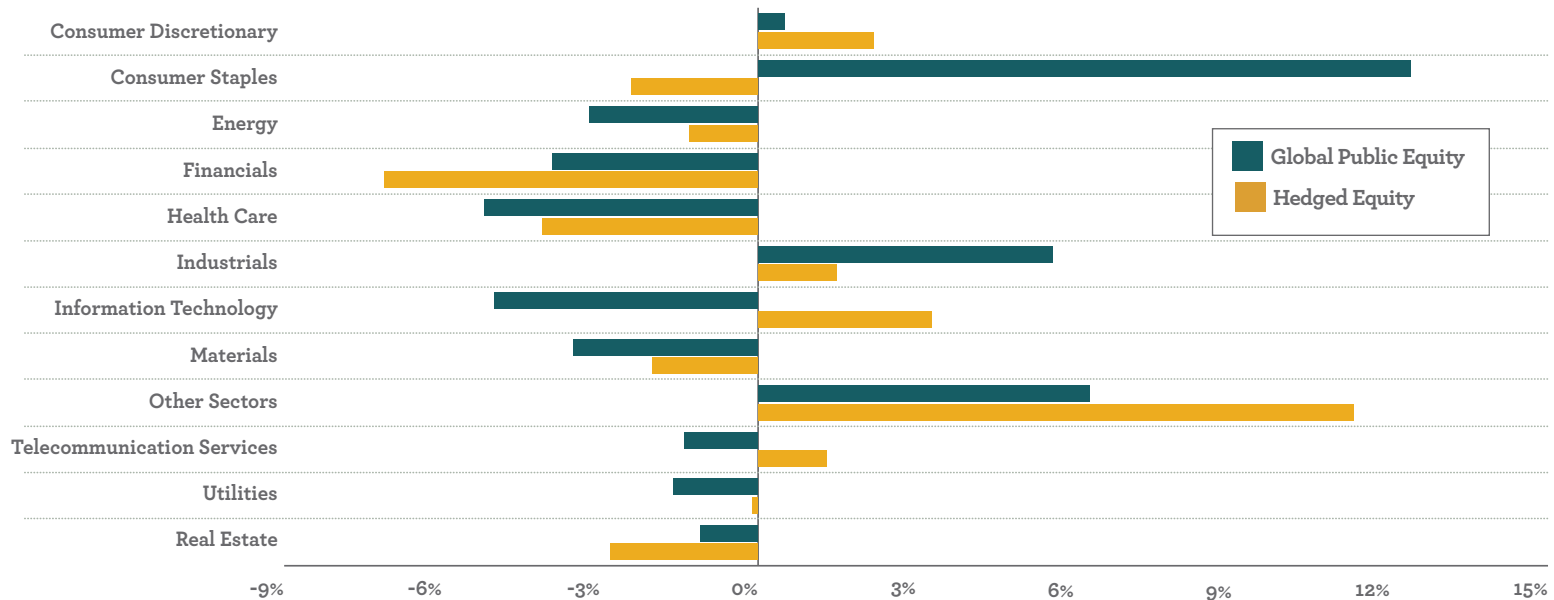
Hedged Equity



MSCI ACWI IMI



Sector Under/Over Allocation¹



¹ Relative to MSCI ACWI IMI

Real Assets Summary

As of December 31, 2017

Strategy	Number of Fund Commitments	Portfolio Weight	Commitments	Unfunded Commitments	Total Contributions	Distributions	Remaining Value	Total Value
Total Real Estate	7	14.1%	\$313,400,000	\$72,558,309	\$277,433,730	\$43,970,302	\$269,058,605	\$313,028,907

Strategy	Market Value	Portfolio Weight	Gross Exposure	Standard Deviation	Sharpe Ratio	BCOM	
						Beta	Correlation
Commodities	\$9,258,879	0.5%	13.4	13.5%	-0.50	1.0	0.9
<i>BCOM</i>				<i>12.5%</i>	<i>-0.44</i>	-	-

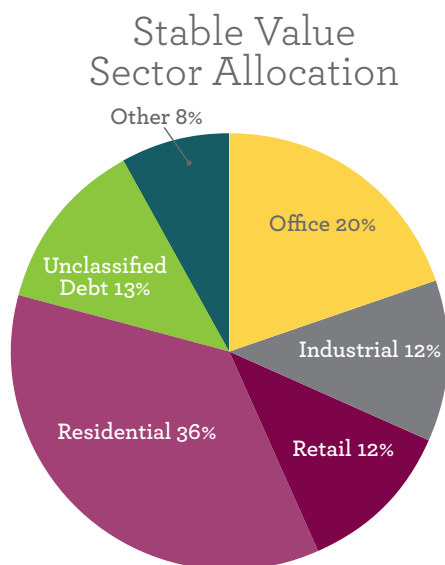
Real Estate Detail

As of December 31, 2017

Strategy	Number of Current Fund Commitments	Commitments	Unfunded Commitments	Total Contributions	Distributions	Remaining Value	Total Value
Stable Value	7	\$313,400,000	\$72,558,309	\$277,433,730	\$43,970,302	\$269,058,605	\$313,028,907
Enhanced Return							
Total Real Estate							

Strategy	Distributed/Paid In (DPI)	Total Value/Paid In (TVPI)	1 Year IRR	ITD IRR	Time Weighted Returns		
					1 Year	3 Year	5 Year
Stable Value	0.16	1.13	9.0%	9.7%	9.0%	8.9%	-
<i>Stable Value RE Blend</i>					6.7%	9.8%	-
Total Real Estate							

Real Estate Blend



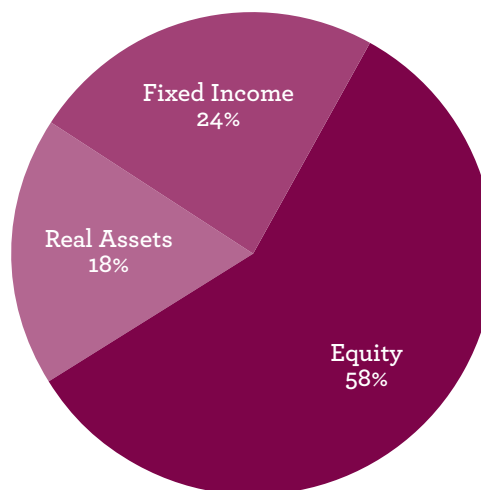
All Asset Strategies

As of December 31, 2017

Strategy	Market Value	Portfolio Weight	Standard Deviation ¹	Sharpe Ratio ¹	Downside Deviation ¹	Max Drawdown ¹	% Positive Months ¹	Total Policy Benchmark	
								Beta ¹	Correlation ¹
Multi-Strategy	\$90,668,574	4.7%	-	-	-	-	-	-	-
All Asset Total	\$90,668,574	4.7%	-	-	-	-	-	-	-
<i>TTSTC Blended Endowment</i>			3.0%	0.92	3.1%	-6.0%	66.7%	-	-

¹ Trailing 36 months.

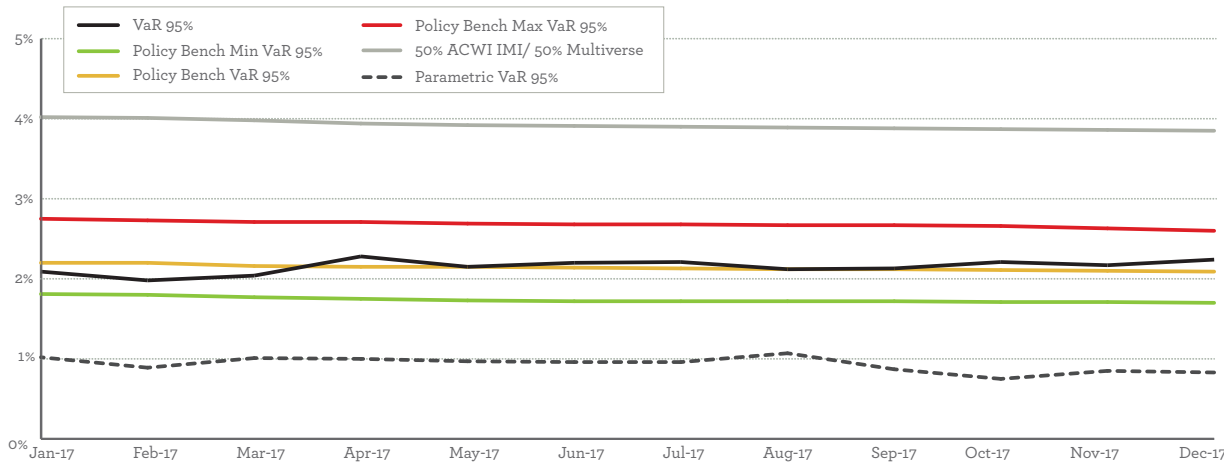
All Asset Breakdown



Value at Risk (VaR) Analysis

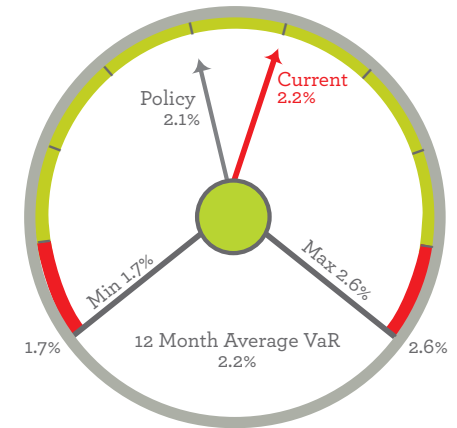
As of December 31, 2017

Twelve Month History

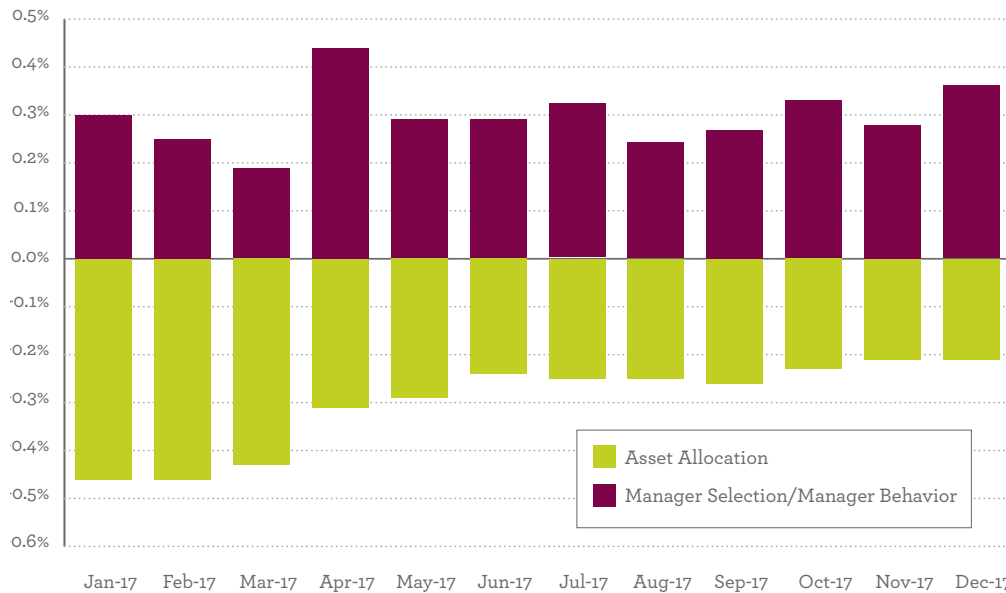


VaR as a Percent of Market Value

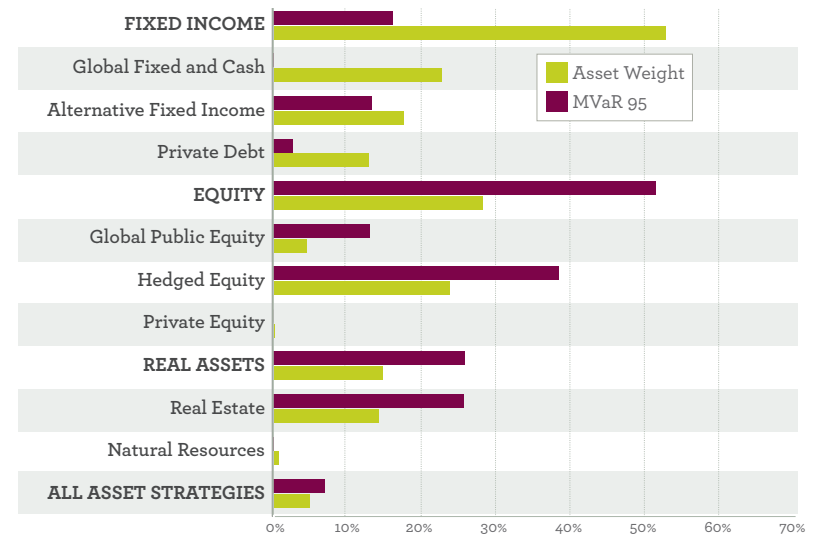
(One Month, 95% Confidence)



Differential from Policy VaR



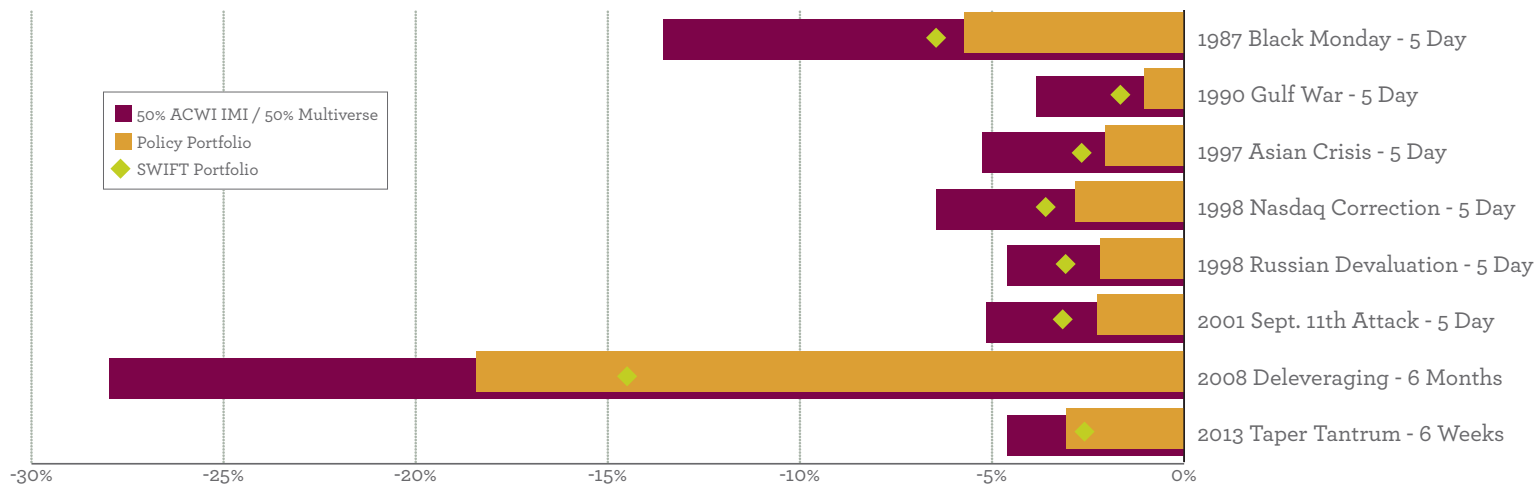
VaR Contribution



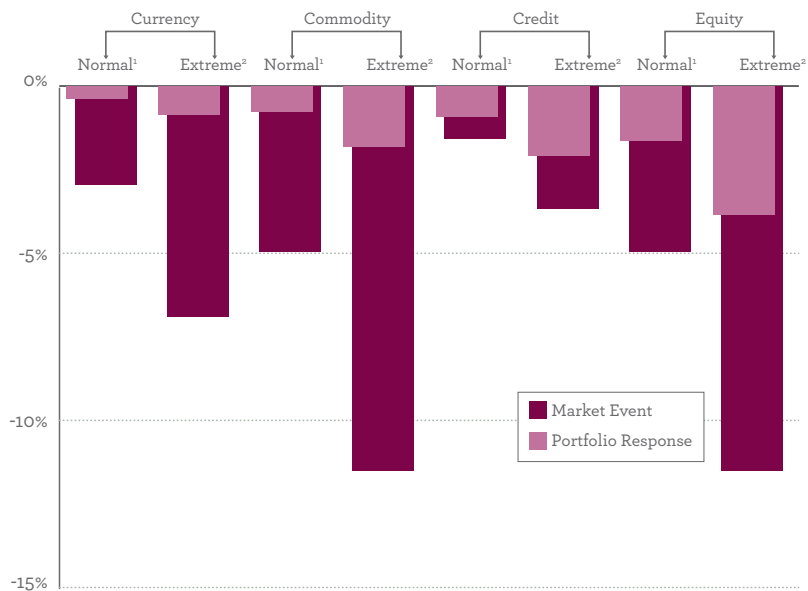
Portfolio Risk Summary

As of December 31, 2017

Scenario Analysis



Monthly Portfolio Tail Risk Profile



¹ Normal Scenarios - 16% Probability.
² Extreme Scenarios - 1% Probability.

SWIFT Performance Table

As of December 31, 2017

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2013												0.0%	0.0%
2014	0.0%	0.1%	0.2%	0.1%	0.4%	0.3%	-0.1%	0.3%	-0.5%	0.0%	0.1%	-0.6%	0.3%
2015	0.3%	0.9%	-0.1%	0.4%	0.2%	-0.7%	-0.1%	-1.3%	-1.3%	1.0%	-0.4%	-1.1%	-2.2%
2016	-1.3%	-0.4%	1.8%	1.2%	0.8%	0.1%	1.5%	0.8%	0.5%	0.0%	0.4%	1.1%	6.6%
2017	0.8%	1.0%	0.6%	0.8%	0.9%	0.1%	0.7%	0.6%	0.7%	0.8%	0.4%	0.4%	8.1%



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